

## EFFECTIVE HOME EXERCISES FOR THE BUSY WOMAN



Front view of the corset substitute.



Stretch the leg up as high as it will go. Bring the knee completely back to position each time, not half way back.

Take the exercise with a yawn and the pleasurable sense of a good stretch. Be sure that you are not holding the breath.

### Florence Bolton, Gymnasium Director of Stanford University, Gives Some Valuable Advice for Improving the Feminine Physical Condition

VERY few women indeed are satisfied with their physical condition, and quite as few have the time or opportunity to attend a gymnasium. It is for this big majority of her sex that Florence Bolton, who is the gymnasium director at Stanford University, has issued a book on exercise for women. It is published by Funk & Wagnalls.

The adjustment of the human race, says the author, to the erect posture, though going on through so many ages, seems not yet complete, and the change from the position on all fours has apparently been harder on woman than on man. But may not the various disabilities which we attribute to her less perfect adjustment to the upright position be in some degree traced to loss of tone due to an increasing inactivity, to faulty clothing and to similar conditions which society and civilization have imposed?

In these days no gymnastic lesson carries out its purpose of combating artificial and faulty conditions if it fails to give very definite attention to the feet, for while actual flat foot is comparatively rare, weak feet in various stages of flattening are most common, and we find a constant increasing number of people disabled for a longer or shorter time as a result of foot strain. These weak feet seem most liable to serious trouble, and they suffer often from swelling and burning of the feet or from pains of varying intensity about the instep, ankle or arch. Nor does the trouble always stop here. Weakened or flattened feet, quite aside from any local pain, can account for such things as headache, swellings at the back of the neck, nervous headache, all resulting more or less from the jar of walking on joints about the hips, and may even be a not insignificant factor in a case of nervous dyspepsia. The old vague diagnosis of the disorder as "rheumatism," "swelling of the feet," "something wrong with the nerves and blood vessels of the feet" has passed, and we know that these various forms of pain and discomfort are very frequently due to the general flattening of the arch of the foot.

In a normal condition, when the support is in the proper position under its weight, the foot is turned straight forward and is slightly hollowed in the inner side. The pressure comes across the front part of it (including the great toe) along the outer border (i. e., along the little toe side), and on the heel—not along the inner border where the arch is highest. In this position the foot has perfect freedom of action, and the body weight does not interfere with the spring and elasticity of the arch. Under normal conditions, also, the whole arrangement of bones, ligaments and muscles at the knee is such that instead of continually yielding to its burden the knee joint is kept firm and straight; this straight foot position is throughout a position of strength, of which there is no better proof than the fact of its constant use in boxing and fencing in making a firm base from which to act. To increase the strength of its position, the boxer or fencer will at times even turn the foot inward. But society has demanded of us (of girls especially) that we should turn our toes out.

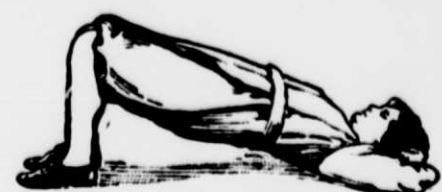
The position in which the foot is most at rest is the one in which the toe is stretched and pointed down like the toe of the dancer, for in this position the arch is forced up as much as possible, the small bones slip into their normal places and the ligaments and tendons, which have been on the stretch, are given a chance to regain their elasticity. Therefore, rising frequently on the tips of the toes (with the weight strongly on the little toe side) during hours of forced standing is a rest, and either holding the foot pointed and somewhat puffed out, or taking toe pointing as an exercise while one is sitting or lying down, is not only a relief but a means of strengthening the foot and its arch. To keep the foot in this position artificially, however, for many hours at a time, as we do in a high-heeled shoe, only tends in the end to weaken it. It is always action, not position, which gives strength.

A boy, up to the age when as a young man the serious work of life begins to absorb him, has infinitely greater physical freedom and opportunity to establish good muscle tone than his sister, and is so dressed throughout his life that the play of muscle in the most ordinary daily activities helps to some extent to maintain that tone. In the case of a girl, however, inertia, the tendency to sit about and be inactive, makes its appearance very early; how early depends to some extent upon the attitude of the people who make up her environment and upon their ideas as to what is "proper" or "improper" for a girl of a given age to do. The tendency to general inactivity usually grows marked with the putting on of long skirts, and loss of movement in the trunk is noticeable with the addition of corsets to the wardrobe. This inactivity goes on increasing with years and the wearing of conventional clothes until there comes that settled, stiff, unaltered look characteristic of many women of thirty or over.

Clothes are, however, such a constant and important factor in a woman's environment, and their action on the body is so closely connected with the question of exercise and development that they cannot fairly be left out of a discussion of these matters, and there are one or two points which naturally demand attention here. In the first place, a woman's dress is essentially ill

adapted to activity or even to normal posture, although most of us, having forgotten the freedom of childhood, are no longer conscious of the resistance and irritation of clothing which, nevertheless, are always present and always drawing on our nervous vitality. Shoes are faulty, skirts are a drag and hindrance, and the most vital part of the body is encased in an impervious and

business, travel and street wear. It is an essential part of the wardrobe, and far too useful to be lightly discarded, and yet to many women, especially those who wear no corset or only a light one, the heat, pressure and drag at the waistline are a source of constant nervous irritation and annoyance. Perhaps the following arrangement may solve their problem: With seven



Raise the hips until there is a straight incline from neck to knees. Relax thoroughly before repeating.



A common sight— the ankles bulging inward.



"Toeing out" has allowed the weight to fall to side, pressing down arch.



A normal, springy step. Notice that the weight falls on the outer side of the foot.



From this bent knee position stretch the leg up, making a straight line to the tip of the toes.



Fling the heels up and back as far as they will go, even until they touch the body.



Do not try to raise the hips; it is only at the knees that we want the stretch.



Press down with the arms as they lie loosely folded under the chest and force the neck back, being careful to keep the chin well drawn in.



Hump the back up as high as you can, and then let it slump down completely before humping again.

inflexible wrapping and in a series of heating and restricting belts. The development that might come from bending, stooping and twisting in the ordinary activity of the day is interfered with by this artificial swathing around the waist, which practically cuts the abdominal muscles in two in their action and prevents the contraction of the back muscles.

Dependence denotes weakness, whether it is upon our morning coffee that we depend or upon a corset, and the amount of dependence in either case is an index of the amount of weakness that has been produced. In other words, the weaker a woman is muscularly the more she feels the need for support, and the longer she wears a support to do the work for her muscles the weaker her muscles grow. Many women have reached a degree of flabbiness which, for the sake of the position and proper action of the internal organs, necessitates a support of some kind, but to consider the average stock corset in the light of a support is a fallacy, for sloping in as it does under the bust and going in sharply at the waist line, instead of being a support, it produces an actual downward pressure on the abdomen and the organs within.

The prevalence of belts and bands in the costume of our women is, no doubt, to some extent, responsible for the prevalence of corsets. Belts worn without a corset or other boned protection are decidedly uncomfortable and may also be harmful, unless they are worn several inches larger than the waist measure and supported from the shoulders or allowed to rest on the hips. It is a mistake to think that the weight of women's skirts is ordinarily borne by their hips. The pressure comes, instead, at the waist line, which is always at the point of smallest girth—with most women two or three inches above the hip bones. The only reasonable place to wear a belt is not directly over vital organs, as custom at present requires, but where its pressure will come on bone and heavy muscle, four or five inches below the point called the waist line. Sarah Bernhardt, avoiding the unnatural and inartistic line directly around the middle of the body, has consistently omitted anything which deliberately restricted the conventional waist line. Her costume is short waisted in the style of the Empire; or it has a girder dropping loose and low, which follows more or less the line of the bony girdle of the pelvis.

To begin with, the combination, or union suit, is preferable to undervest and drawers, as it does away with one belt and one layer from that unwholesome accumulation of material below the waist. Women seem rather generally to fear abdominal chill, and give that as a reason for the many thick bodies they wear over this part of the body, but the infinitely more common complaints of constipation and congestion which are aggravated by the uneven distribution of clothing and heat are apparently never considered. If drawers and vest must be worn for any reason, the top of the drawers may be cut down four or five inches and a narrow elastic run into the hem as a substitute for belt or tape.

For any one who does not wear a corset the question of keeping up the stockings is always difficult. Stockings suspended by garters over the shoulders are very tiring, and really a mistake, where the back and chest are not strong, for very few of us find it easy to keep the chest well pushed up and the spine straight even under the best conditions without subjecting ourselves to the added drag of clothing.

While the princess petticoat is theoretically all that could be wished, it has its drawbacks, and the belted skirt seems for practical purposes almost unavoidable. However, one light weight undershirt is sufficient for all ordinary occasions if we do not depend upon skirts for warmth; and if the band is made several inches larger than the waist measure, is hung up to two or three hooks on the back of the corset waist and allowed to drop well in front it gives about as much freedom as one piece garment.

The tailor suit, consisting of jacket, skirt and shirtwaist, has become a sort of national costume for women for

ment underneath it is a quick and simple. A few fastenings under the front plait, the bretelles hooked into an eye on each shoulder seam, and the skirt is neatly and safely on without pins and with no fear of anything wrong at the back.

It is not possible to find or make one style or shape which will suit all feet nor to lay down narrow rules concerning the kind of shoe which every one should wear. Feet that have been moulded for many years by faulty



Winged Victory of Samothrace.

Bring the left knee up as high as possible toward the chest about six times, dropping the leg back to position again.

Then raise the knee again to its first position. Take the movement about six times with each leg, or with right and left alternately.

### Hints to Prevent Flattening of the Arch of the Foot Resulting From Strain—Dangers of Faulty Clothing

redeeming feature of being large enough through the toes, but it is usually large everywhere and so much too flat in the heel, in the arch and in general build that it often results, in spite of the theory on which the last has been built, in flattening down the

any one. For older people whose arteries have lost some of their elasticity, or in cases where there is general languidness or lack of vitality, or where the heart is not very strong, this mild exercise increases the heart beat gradually after the night's quiet, instead of starting it up suddenly, as happens when one springs energetically out of bed on waking.

The bath is an important adjunct of exercise, for the skin must be cleansed of the waste matter that it has exuded, and the pores must be closed, to prevent chill. To accomplish this it is by no means necessary to jump into a tub or to take a shower, and the cold tub and cold shower are not to be recommended in most cases, as the sudden driving of the blood from the surface when one is very warm is apt to be too great a shock. Besides, warm water is more cleansing than cold, so that it is better to use warm water first and then the quick rinse with cold water afterward to close the pores.

But there are more ways than one of caring for the skin. A rub off with a towel, wet and then well wrung and shaken out, makes a good substitute for the tub or shower on cold days or when the vitality is not quite so high as usual. As a daily bath, also, the damp towelling may be used with tonic effect by those who find that they do not react well after a more generous application of cold water, and it may be found desirable to use a dry towel after the wet one. A dash of cold water about the neck and chest after one grows accustomed to it makes a pleasant finish for the towel bath.

It is not an uncommon thing to wash the face and as one dries it to have the feeling that it has been smeared over with a thin coat of varnish, especially if one has been so misguided as to use a little soap. A little almond meal (unscented), borax, or ordinary baking soda used with hard water, though somewhat sparingly in order not to dry the skin, will act as a solvent and make the bath more cleansing.

Briefly, the matter stands thus—that ordinary bathing is not bathing under all circumstances, and in all climates; that the main purpose of the bath is to cleanse the skin and to keep the pores free; that water alone will not always accomplish this for all people alike, and that there are other ways of keeping the skin in order besides getting into a tub. This does not mean that the tub bath is to be given up altogether. The tonic effect of the cold bath or of the rapid hot bath, for certain people under certain conditions, has been proved and accepted; and the necessity for most people of a warm bath every few days, in addition to some kind of daily grooming, is equally well established.

Some women find it tiring to lie at full length on the back, especially those who are large through the hips. The strain is relieved by drawing the knees up a little and, where the exercise calls for a straight leg position, by keeping one knee bent while the other leg is taking the movement. Before beginning the exercise the pupil should lie for a few minutes in a state of relaxation or should spend a little time in trying to acquire the ability to relax, for that ability not only saves us daily much good energy and nervous force, but also comes to our aid in times of sleeplessness, pain or illness. To be able to relax perfectly also means to be able to rest thoroughly—to get the greatest amount of rest in the shortest time.

The pupil should notice frequently whether or not she is breathing freely and rhythmically, for there is a tendency to hold the breath both when an exercise is too heavy and also when the pupil is naturally inclined to be rigid. Thus the breathing may indicate to the pupil whether she is properly relaxed or not and also whether she is taking work that is somewhat beyond her strength.

To relax, drop down on a bed or mat in any comfortable position with the feeling that you do not have to move for hours and that nothing can make you get up. Then slowly turn over on the back and lie with the legs straight down (or one knee bent) and the arms flung out. Drop the eyelids sleepily, drop the tongue and jaw far back, feel heavy, limp all over; hear nothing; namely, do not let the mind hear what comes in at the ears. Think nothing; or if you must think, put your mind on your breathing. Breathe slowly and rhythmically, sinking away more and more into a state of sleepy indifference each time the breath goes out and waiting a lazy moment before taking the breath in again. Now and then test the hand or foot to see whether it is limp and heavy; too heavy to lift from the floor. Loosen the curled fingers, and smile a little to relax the muscles of the face, which are tense more often than we realize.

Daily deep breathing is one of the best exercises that a woman can take; it should be taken at frequent intervals during the day, not always in the formal way nor in the position given here; but wherever and whenever it is possible to get good fresh air. Try it while walking in the street, a breath to so many steps; stop to take a few inhalations when passing an open window in the house; make it a rule before going to sleep at night, for it is helpful where there is a tendency to sleeplessness. Practise it regularly on waking in the morning; in short, form the habit of slower, deeper breathing at all times, for it has a quieting effect on heart and nerves and helps the circulation. Moreover, the time for exercise is largely an individual matter. It is unwise to draw the blood away from the stomach by exercising within an hour or more after eating, and for many people it is not advisable to take any very vigorous exercise before breakfast. A few minutes of deep breathing, yawning, stretching and squirming before getting up in the morning is normal and wholesome for

### FRANCES AND HER LITTLE LION



Young Frances Tacher thinks no more of playing with a lion cub than most children do of playing with a kitten. Because she and her brother Jack contributed the first \$10 bill toward a fund to erect a new lion house in Central Park Bill Snyder extends to Frances privileges which few other children enjoy. The accompanying photo shows Frances feeding Panama, the lion cub.

Photo by Underwood & Underwood.